

Merritt Parkway, High Ridge Road/Route 137 Bridge
Spanning High Ridge Road/Route 137 at the 10.66 mile
mark on the Merritt Parkway
Stamford
Fairfield County
Connecticut

HAER No. CT-79

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
U.S. Department of the Interior
P.O. Box 37127
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HISTORIC AMERICAN ENGINEERING RECORD

Merritt Parkway, High Ridge Road/ Route 137 Bridge

HAER No. CT-79

Location: Spanning High Ridge Road/ Route 137 at the 10.66 mile mark on the Merritt Parkway in Stamford, Fairfield County, Connecticut at exit 35

UTM: 18.622010.4551950
Quad: Stamford, Connecticut

Construction Date: 1937

Engineer: Connecticut Highway Department

Architect: George L. Dunkelberger, of the Connecticut Highway Department, acted as head architect for all Merritt Parkway bridges.

Contractor: Mariani Construction Company
New Haven, Connecticut

Present Owner: Connecticut Department of Transportation
Wethersfield, Connecticut

Present Use: Used by traffic on the Merritt Parkway to cross High Ridge Road/ Route 137

Significance: The bridges of the Merritt Parkway were predominately inspired by the Art Deco and Art Moderne architectural styles of the 1930s. Experimental forming techniques were employed to create the ornamental characteristics of the bridges. This, combined with the philosophy of incorporating architecture into bridge design and the individuality of each structure, makes them distinctive.

Historians: Todd Thibodeau, HABS/HAER Historian
Corinne Smith, HAER Engineer
August 1992

For more detailed information on the Merritt Parkway refer to the Merritt Parkway History Report, HAER No. CT-63.

LOCAL HISTORY

In 1640, agents of the New Haven Colony bought land on the banks of the Rippowam River where it meets the Long Island Sound. The following year, twenty-nine families from Wethersfield purchased these lands and moved there under the leadership of the Reverend Adam Davenport. The small settlement took the name Stamford even though it was still under the jurisdiction of the New Haven Colony. Stamford would continue to grow, and at one point included parts of Greenwich, Bedford, Pound Ridge, New Canaan, and Darien. In 1685, Stamford received its town patent from the Connecticut General Assembly. By 1700 its population had grown to 585; over the next century this number increased dramatically to 4,465.¹

"Stamford began as a typical rural New England village and remained an agrarian community throughout the seventeenth and eighteenth centuries."² The region maintained around 4,000 residents until the arrival of the railroad in 1848. The introduction of the train meant that Stamford was less than two hours from New York City. The railroad also caused a boom in manufacturing. By 1850 the population increased to 5,000, and thirty years later this number more than doubled to 11,000.

Stamford's proximity to New York, combined with inexpensive land, and the availability of cheap foreign-born labor enabled many local companies to prosper and expand. The Stamford Manufacturing Company, the St. John Woodworking Company, the Stamford Woolen Mills, and the Yale & Towne Manufacturing Company, employed thousands of workers by the early 1890s.³

¹D. Hamilton Hurd, History of Fairfield County, Connecticut, (Philadelphia: J. W. Lewis Co., 1881), 692.

²Wayne Russell, "That Special Blend--Stamford's Melting Pot," Stamford Past and Present, 1641-1976, (Stamford: Stamford Bicentennial Committee, 1976), 67.

³Russell, 67.

With this expansion of manufacturing came increased traffic on the main artery through town, the Boston Post Road. By the end of World War I, local residents were clamoring for a solution to the vehicular congestion. Unlike other communities along the Merritt that suffered through many conflicts, most residents in Stamford worked together to have the roadway completed as soon as possible.⁴

BRIDGE CONSTRUCTION HISTORY

Historically, High Ridge Road/Route 137 was the primary link between the agricultural community of High Ridge and the market at Stamford. The Osborn-Barnes Construction Company of Danbury, CT, received the contract to grade the Merritt Parkway from Guinea Road, in Stamford, to Ponus Ridge Road, in New Canaan (ConnDot project #180-31). While the High Ridge Road/Route 137 Bridge is located within this section of the Merritt, the bridge contract went to the Mariani Construction Company of New Haven, CT (ConnDot project #180-37).⁵ The bridge cost \$49,980 and was completed in 1937. The paving work for this region of the Merritt extended from Wire Mill Road, in Stamford, to Lapham Avenue, in New Canaan. This contract was awarded to the New Haven Construction Company of New Haven, CT (ConnDot project# 180-93).⁶

⁴"Merritt Parkway Opens," Stamford Advocate, 3 July 1938, p. 1.

⁵Contract Card File, Map File and Engineering Records Department, Connecticut Department of Transportation, Wethersfield, CT.

⁶High Ridge Road/Route 137 Bridge, DOT #706; Bridge Maintenance File, Engineering Department, Connecticut Department of Transportation, Newington, CT.

In 1960, the High Ridge Road/Route 137 Bridge had its on and off ramps revised. In 1992, the bridge had its deck replaced. At this time the existing ornamental railing was reset, and a new parapet and curbing were installed behind. The frieze panels were replaced and all spalling concrete on the abutments and wing walls was removed and patched (ConnDot #135-203).⁷

BRIDGE DESCRIPTION

The High Ridge Road Bridge is a single-span deck bridge comprising six steel rigid frames that span 64'. Parallel wing walls, 28'-5-1/2" long, form the approach for the underpass. Spaced 11' on center, the frames support a 9"-thick reinforced-concrete slab that cantilevers 4'-7" past the outer frames. The Merritt Parkway travels under the bridge at a skew of 40°-14', with a clear roadway of 60'.

The rigid-frame design allows the engineer to decrease the structural material at the center of the span, thus forming an arched opening. (See the Merritt Parkway History Report, HAER No. CT-63, for a more detailed description of the rigid-frame.) The intrados of the span rises almost 4'-9" from the spring line to the crown, while the extrados rises at a 3 percent grade from the knee to the crown. The frame thickness at the crown is 18". The inner radius of the knee of the frame is 11-1/2", and the outer is 5'-4". The inside face of each leg remains vertical for a height of 14', while the outside face slopes to thicken the leg from 2'-6" at the bottom to more than 3'-6" at the knee. The legs of the frame, encased in concrete, bear on a rectangular, reinforced concrete-footing, anchored with bolts.

The steel frames are I-sections built up from 6" equal leg angles covered with plates for flanges and 1/2" thick plates for webs. All flange and web pieces are connected with 7/8" diameter rivets. Web

⁷High Ridge Road/Route 137 Bridge, DOT #706; Bridge Maintenance File.

stiffeners on each side of the web are spaced about 3' apart across the span and closer at the knee and legs. Channel sections serve as cross braces for adjacent frames.

The High Ridge Road Bridge utilizes concrete and metal ornamentation. The south pylons feature scraffito panels of two griffins holding the Connecticut state coat of arms with the date 1936 below it.⁸ The background of the panel is dark grey, and the griffins and the seal are a very light buff. The drawings specify that the coat of arms and date should be slightly bleached. Below this panel is a precast scraffito band of alternating triangles. The two north pylons, smaller than the south pylons, and the pylons at the ends of the wing walls are decorated with the same precast band. The legs of the rigid frame are encased in concrete pilasters with Doric capitals.

The metal plate that serves as the base of the frieze at the edge of the slab was incorporated into the formwork. Moldings ordered by number from a catalog were then attached to the plate. The metal rail posts were bolted to the concrete curb, and the railings were built from stock rails, steel bars, cast iron rosettes, and wrought iron ornaments. At the wing walls a large rectangular concrete post is inserted between each 9' rail panel.

BIBLIOGRAPHY

Hurd, D. Hamilton. History of Fairfield County, Connecticut. Philadelphia: J. W. Lewis Co., 1881.

Russell, Wayne. "That Special Blend--Stamford's Melting Pot." Stamford Past and Present, 1641-1976. Stamford: Stamford Bicentennial Committee, 1976.

Stamford Bicentennial Committee. Stamford Past and Present, 1641-1976. Stamford: Stamford Bicentennial Committee, 1976.

Stamford Advocate. 1937-1939.

⁸The date on the bridge does not correspond to the completion date of the bridge.

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- Contract Card File. Map File and Engineering Records Department, Connecticut Department of Transportation: Wethersfield, CT. This includes construction drawings, copies of which are in the HAER field records.
- Bridge Maintenance File. Engineering Department, Connecticut Department of Transportation: Newington, CT.

PROJECT INFORMATION

This recording project was undertaken by the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER) Division of the National Park Service, Robert J. Kapsch, Chief. The Merritt Parkway recording project was sponsored and funded by the Connecticut Department of Transportation (ConnDot) and the Federal Highway Administration.

The fieldwork, measured drawings, historical reports and photographs were prepared under the general direction of Eric N. DeLony, HAER Chief, and Sara Amy Leach, HABS Historian.

The recording team consisted of Jacqueline A. Salame (Columbia University), architect and field supervisor; Mary Elizabeth Clark (Pratt Institute) and B. Devon Perkins (Yale University), architectural technicians; Joanne McAllister-Hewlings (US/ICOMOS-Great Britain, University of Sheffield), landscape architect; Corinne Smith (Cornell University), engineer; Gabrielle M. Esperdy (City University of New York) and Todd Thibodeau (Arizona State University), historians; and Jet Lowe, HAER photographer.